

A. INTRODUCTION

This chapter examines the potential effects of the proposed Cornell NYC Tech project on community facilities in the study area surrounding the project site on Roosevelt Island. The June 2012 *City Environmental Quality Review (CEQR) Technical Manual* defines community facilities as public or publicly funded facilities, including schools, health care, child care, libraries, and fire and police protection services. *CEQR Technical Manual* methodology focuses on direct impacts on community facilities and services and on indirect impacts to community facilities and services caused by increased demand for such services that would be generated by new users, such as the new population that would result from the proposed project.

This analysis of community facilities has been conducted in accordance with *CEQR Technical Manual* guidelines and the latest data and guidance from agencies such as the New York City Department of Education (DOE), New York City Department of City Planning (DCP), New York City Fire Department (FDNY), New York City Police Department (NYPD), and Roosevelt Island Operating Corporation (RIOC).

As detailed in this chapter, the proposed project would not result in any significant adverse impacts on community facilities.

B. PRELIMINARY SCREENING

The purpose of the preliminary screening is to determine whether a community facilities assessment is required. As recommended by the *CEQR Technical Manual*, a community facilities assessment is warranted if an action has the potential to result in either direct or indirect effects on community facilities. If a proposed action would physically alter a community facility, whether by displacement of the facility or other physical change, this “direct” effect triggers the need to assess the service delivery of the facility and the potential effect that the physical change may have on that service delivery. New population added to an area as a result of an action would use existing services, which may result in potential “indirect” effects on service delivery. Depending on the size, income characteristics, and age distribution of the new population, there may be effects on public schools, libraries, or child care centers.

DIRECT EFFECTS

Although there is currently a hospital on the project site, it will be relocated regardless of the proposed project, and the Goldwater Hospital site will be delivered unused and vacant. As discussed in Chapter 2, “Land Use, Zoning, and Public Policy,” the New York City Health and Hospitals Corporation (NYCHHC) will vacate the Goldwater Hospital campus and relocate its facilities and patients elsewhere, independently of, and prior to, the proposed project. Therefore, the proposed project would not have any direct effects on any community facilities.

INDIRECT EFFECTS

The *CEQR Technical Manual* provides thresholds that provide guidance in making an initial determination of whether a detailed analysis is necessary to determine potential impacts. **Table 4-1** lists those *CEQR Technical Manual* thresholds for each community facility analysis. If a proposal exceeds the threshold for a specific facility, a more detailed analysis is warranted. A preliminary screening analysis was conducted to determine if the proposed project would exceed established *CEQR Technical Manual* thresholds warranting further analysis. Based on that screening, a detailed analysis is provided below for: public elementary and intermediate schools; and libraries.

**Table 4-1
Preliminary Screening Analysis Criteria**

Community Facility	Threshold For Detailed Analysis
Public schools	More than 50 elementary/intermediate school or 150 high school students
Libraries	Greater than 5 percent increase in ratio of residential units to libraries in borough
Health care facilities (outpatient)	Introduction of sizeable new neighborhood where none existed before
Child care centers (publicly funded)	More than 20 eligible children based on number of low- and low/moderate-income units by borough
Fire protection	Introduction of sizeable new neighborhood where none existed before
Police protection	Introduction of sizeable new neighborhood where none existed before
<p>Notes: The <i>CEQR Technical Manual</i> cites the Hunter’s Point South project as an example of a project that would introduce a sizeable new neighborhood where none existed before. The Hunter’s Point South project would introduce approximately 6,650 new residential units to the Hunter’s Point South waterfront in Long Island City, Queens.</p> <p>Source: <i>CEQR Technical Manual</i> (June 2012 edition).</p>	

Roosevelt Island also contains Sportspark, an important community facility that contains an Olympic-size swimming pool, a gymnasium, basketball courts, a ping pong room, and a large tennis complex. The potential indirect effects of the proposed project on Sportspark are accounted for in Chapter 5, “Open Space.”

PUBLIC SCHOOLS

The *CEQR Technical Manual* recommends conducting a detailed analysis of public schools if a proposed action would generate more than 50 elementary/intermediate school students and/or more than 150 high school students. As described in Chapter 1, “Project Description,” Cornell University has provided estimates of the number of children that would be generated by the proposed project. These estimates account for the specific population of faculty, postdoctoral fellows, Ph.D. candidates, and master’s students that would be introduced by the proposed project, and are based on the University’s operations and experience. Phase 1 of the proposed project is forecast to introduce approximately 41 school age children, comprised of 22 elementary school students, eight intermediate school students, and 11 high school students.¹ As

¹ The estimated number of elementary, intermediate, and high school students that would be introduced by the proposed project was calculated by dividing Cornell University’s total estimate of students by the proportionate rates in Table 6-1a of the *CEQR Technical Manual*. These rates are 0.12 elementary school students, 0.04 intermediate school students, and 0.06 high school students per dwelling unit, for a total of 0.22 school-aged children per dwelling unit. Therefore, out of the total number of school-aged

the number of students introduced by the proposed project by 2018 would not exceed the relevant student thresholds noted above, detailed analyses are not warranted for the 2018 analysis year.

The full build out of the Cornell NYC Tech campus would introduce approximately 89 school age children, comprised of 49 elementary school students, 16 intermediate school students, and 24 high school students. This number of students warrants a detailed analysis of the proposed project's effects on elementary and intermediate schools for the 2038 analysis year. Because the proposed project would not introduce more than 150 high school students, a detailed analysis of public high schools is not necessary.

LIBRARIES

An analysis of libraries is undertaken if a proposed project would result in more than a 5 percent increase in the ratio of residential units to library branches in the borough in which it is located. In Manhattan, the *CEQR Technical Manual* threshold for this increase is 901 residential units. Phase 1 of the proposed project would introduce approximately 442 residential units for Cornell leadership-staff, faculty, postdoctoral fellows, Ph.D. candidates, and master's students. As the number of residential units introduced by the proposed project by 2018 would not exceed 901 units, a detailed library assessment is not warranted for the 2018 analysis year.

The full build out of the Cornell NYC Tech campus would introduce approximately 1,094 residential units for Cornell leadership-staff, faculty, postdoctoral fellows, Ph.D. candidates, and master's students. Therefore, a detailed assessment of the potential impacts on public libraries will be conducted for the 2038 analysis year.

CHILD CARE CENTERS

According to the *CEQR Technical Manual*, if a proposed project would add more than 20 children eligible for public child care to the study area's child care facilities, a detailed analysis of its impact on publicly funded child care facilities is warranted. This threshold is based on the number of low-income and low/moderate-income units within a proposed project site.² In Manhattan, projects introducing 170 or more low- to moderate-income units would introduce 20 or more children eligible for child care services. The proposed project would not result in any housing units for low-income or low- to moderate-income households. Therefore, there would be no significant adverse impacts on publicly funded day care facilities, and a detailed analysis is not warranted.

POLICE, FIRE, AND HEALTH CARE SERVICES

The *CEQR Technical Manual* recommends detailed analyses of indirect impacts on police, fire, and health care services in cases where a proposed project would create a sizeable new

children introduced by a project, 54.55 percent are elementary school students, 18.18 percent are intermediate school students, and 27.27 percent are high school students. These percentages have been applied to Cornell University's total estimates in order to disaggregate the overall number of children into elementary, intermediate, and high school students.

² Low-income and low/moderate-income are the affordability levels used in the *CEQR Technical Manual*. They are intended to approximate the financial eligibility criteria established by the Administration for Children's Services, which generally corresponds to 200 percent Federal Poverty Level or 80 percent of area median income.

neighborhood where none existed before. The project site is a previously developed site on Roosevelt Island, an existing and well-established community that is served by existing police, fire, and health care services. Therefore, the proposed project would not create a new neighborhood where none existed before, and a detailed analysis of indirect effects on these community facilities is not warranted. For informational purposes, a description of existing police, fire, and health care facilities serving the project site is provided below.

Roosevelt Island is included in the NYPD's 114th Precinct, which also includes the Astoria neighborhood of Queens. The Island is included in FDNY's Division 12, and the closest FDNY station to Roosevelt Island is Engine 26, located at 11-15 37 Avenue in Queens, in close proximity to the Roosevelt Island Bridge. As stated in the *CEQR Technical Manual*, NYPD independently reviews staffing levels against a precinct's population, area coverage, crime levels, and other local factors, and makes service and resource adjustments as necessary. Likewise, FDNY continually evaluates the need for changes in personnel, equipment, or locations of fire stations and makes any necessary adjustments.

Under *CEQR Technical Manual* guidelines, health care facilities include public, proprietary, and nonprofit facilities that accept government funds (usually in the form of Medicare and Medicaid reimbursements) and that are available to any member of the community. Examples of these types of facilities include hospitals, nursing homes, clinics, and other facilities providing outpatient health services. The Bird S. Coler Memorial Hospital, at the northern end of Roosevelt Island, would not be affected by the proposed project and will continue to provide health care services; however, Coler Hospital is a specialized facility that does not provide general health care services to residents. Hospitals in Manhattan and Queens that are located within 1 mile of the project site include Weill Cornell Medical Center, New York Presbyterian Hospital, the Hospital for Special Surgery, Memorial Hospital for Cancer and Allied Diseases, the Rockefeller University Hospital, Manhattan Eye, Ear and Throat Hospital, and the Mount Sinai Hospital of Queens.

The Roosevelt Island Public Safety Department (RIPSD), under the jurisdiction of RIOC, provides supplemental public safety services on the Island. RIPSD patrolmen and women are designated by the Police Commissioner of the City of New York, and are authorized by Section 2.20 of the Criminal Procedure Law, to act as peace officers. RIPSD assists in enforcing all state and city laws, including traffic regulations and those sections of the Penal Law, Criminal Procedure Law, and Vehicle and Traffic Laws, as they pertain to Roosevelt Island. RIPSD conducts patrols of the Island 24 hours per day, and are headquartered in the Roosevelt Landings residential complex, located at 550 Main Street.

RIPSD coordinates with FDNY and NYPD to ensure that procedures are in place to continually provide police, fire, and emergency medical services on Roosevelt Island. In the event of a scheduled interruption in service for the Roosevelt Island Bridge (i.e., for repairs or when it is raised for river traffic) a fire truck, a police vehicle and an ambulance are dispatched to Roosevelt Island where they are on call in case of any emergency. RIPSD also has a procedure in place to bring firefighters and police officers to Roosevelt Island via tram, subway and RIOC vehicles to ensure rapid response to emergency situations. RIPSD regularly schedules drills with FDNY and NYPD on emergency procedures for the Roosevelt Island Tram.

C. INDIRECT EFFECTS ON PUBLIC ELEMENTARY AND INTERMEDIATE SCHOOLS

METHODOLOGY

This analysis assesses the potential effects of the proposed project (specifically its residential component, which is conservatively assumed to result in 49 elementary school students and 16 intermediate school students by 2038) on public elementary and intermediate schools serving the project site. There is one public school on Roosevelt Island, PS/IS 217, which children introduced by the proposed project would be most likely to attend. However, following the methodologies in the *CEQR Technical Manual*, the study area for the analysis of elementary and intermediate schools is the community school district’s “sub-district” (“region” or “school planning zone”) in which the project is located. The project site is located in Sub-district 5 of Community School District (CSD) 2, which includes Roosevelt Island and a portion of the Upper East Side of Manhattan (see **Figure 4-1**). As discussed above in Section B, an assessment of high schools is not required due to the limited number of public high school students that would be generated by the proposed project.

This schools analysis presents the most recent capacity, enrollment, and utilization rates for elementary and intermediate schools in the sub-district study area. Future conditions are then predicted based on enrollment projections and proposed development projects—the future utilization rate for school facilities is calculated by adding the estimated enrollment from proposed residential developments in the schools study area to DOE’s projected enrollment, and then comparing that number with projected school capacity. DOE does not include charter school enrollment in its enrollment projections. DOE’s enrollment projections through 2018, the most recent data currently available, are posted on the School Construction Authority (SCA) website.³ These enrollment projections are based on broad demographic trends and do not explicitly account for discrete new residential developments planned for the study area. Therefore, the additional populations from the other new development projects expected to be completed within the study area have been obtained from the SCA’s Capital Planning Division and are added to the projected enrollment to ensure a more conservative prediction of future enrollment and utilization. In addition, any new school projects identified in the DOE Five-Year Capital Plan are included if construction has begun.

The effect of the new students introduced by the proposed project on the capacity of schools within the study area is then evaluated. According to the *CEQR Technical Manual*, a significant adverse impact may occur if the proposed project would result in both of the following conditions:

1. A utilization rate of the elementary and/or intermediate schools in the sub-district study area that is equal to or greater than 100 percent in the future with the proposed project condition (With Action); and
2. An increase of five percentage points or more in the collective utilization rate between the No-Action and With Action conditions.

³ Enrollment projections by the Grier Partnership were used: <https://www.nycsca.org>

EXISTING CONDITIONS

ELEMENTARY SCHOOLS

As shown in Figure 4-1, there are nine elementary schools and two K-8 schools in Sub-district 5 of CSD 2, including one K-8 school on Roosevelt Island (PS/IS 217). According to DOE’s ~~2010-2011-2012~~ school year enrollment figures, which are the most recent data currently available, Sub-district 5 of CSD 2 has a total enrollment of 4,946 ~~5,060~~ elementary school students, or 99.9 ~~114~~ percent of capacity, with a surplus ~~deficit~~ of 3 ~~621~~ seats (see **Table 4-2**). PS/IS 217 Roosevelt Island School has a total enrollment of 333 ~~325~~ elementary school students, with a surplus of 234 ~~241~~ elementary school seats.

Table 4-2
Public Schools Serving the Project Sites,
Enrollment and Capacity Data, 2010-2011-2012 School Year

Map No.	Name	Address	Enrollment	Capacity	Available Seats	Utilization
Elementary Schools						
Sub-district 5 of CSD 2						
1	PS/IS 217 Roosevelt Island School (K-8) – PS component	645 Main Street	<u>333</u> 325	<u>567</u> 566	<u>234</u> 241	<u>59</u> 57 %
2	PS 158 Baylard Taylor School	1458 York Avenue	<u>759</u> 739	<u>865</u> 955	<u>106</u> 246	<u>88</u> 77 %
2	PS 267	1458 York Avenue <u>213 East 63rd Street</u>	<u>98</u> 46	<u>92</u> 64	<u>-618</u>	<u>107</u> 72 %
3	PS 77 Lower Lab School	1700 Third Avenue	<u>351</u> 352	<u>265</u>	<u>-8687</u>	<u>132</u> 133 %
3	PS 198 Isador E. Ida Straus School	1700 Third Avenue	<u>551</u> 569	<u>454</u> 404	<u>-97165</u>	<u>121</u> 144 %
4	PS 59 Beekman Hill International School	213 East 63th Street	<u>502</u>	<u>343</u>	<u>-159</u>	<u>146</u> %
4	PS 51	323 East 91st Street	<u>288</u>	<u>225</u>	<u>-63</u>	<u>128</u> %
5	PS 290 Manhattan New School	311 East 82nd Street	<u>635</u> 637	<u>519</u> 433	<u>-116</u> 204	<u>122</u> 147 %
6	PS 225 Ella Baker School (K-8) – PS component	317 East 67th Street	<u>253</u> 258	<u>264</u>	<u>11</u> 6	<u>96</u> 98 %
7	PS 151 Yorkville Community School	323 East 91st Street <u>421 East 88th Street</u>	<u>280</u> 177	<u>616</u> 415	<u>336</u> 62	<u>45</u> 154 %
8	PS 183 Robert L. Stevenson School	419 East 66th Street	<u>609</u> 646	<u>458</u> 450	<u>-151</u> 196	<u>133</u> 144 %
9	PS 6 Lillie D. Blake School	45 East 81st Street	<u>789</u> 809	<u>624</u> 580	<u>-165</u> 229	<u>126</u> 139 %
Sub-district 5 of CSD 2 Total			<u>4,946</u> 4,959	<u>4,949</u> 4,439	<u>3</u> 621	<u>99.9</u> 114%
Intermediate Schools						
Sub-district 5 of CSD 2						
1	PS/IS 217 Roosevelt Island School (K-8) – IS component	645 Main Street	<u>83</u> 93	<u>141</u> 162	<u>58</u> 69	<u>59</u> 57 %
6	PS 225 Ella Baker School (K-8) – IS component	317 East 67th Street	<u>68</u> 69	<u>71</u>	<u>3</u> 2	<u>96</u> 97 %
10	IS 167 Robert F. Wagner School	220 East 76th Street	<u>1,243</u> 1,237	<u>1,444</u> 1,469	<u>201</u> 232	<u>86</u> 84 %
11	IS 114 East Side Middle School	331 East 91st Street	<u>448</u> 434	<u>460</u> 464	<u>12</u> 30	<u>97</u> 94 %
12	Life Science Secondary School	320 East 96th Street	<u>125</u> 126	<u>121</u> 135	<u>-4</u> 9	<u>103</u> 93 %
Sub-district 1 of CSD 2 Total			<u>1,967</u> 1,959	<u>2,237</u> 2,301	<u>270</u> 342	<u>88</u> 85%
Notes: See Figure 4-1.						
Sources: DOE <i>Utilization Profiles: Enrollment/Capacity/Utilization, 2010-2011-2012.</i>						

INTERMEDIATE SCHOOLS

As shown in Figure 4-1 and Table 4-2, there are three intermediate schools and two K-8 schools in Sub-district 5 of CSD 2, including the school on Roosevelt Island (PS/IS 217). Total intermediate enrollment in Sub-district 5 of CSD 2 is 1,967 ~~1,959~~ students, or 88 ~~85~~ percent of capacity, with a surplus of 270 ~~342~~ seats. PS/IS 217 Roosevelt Island School has a total enrollment of 83 ~~93~~ intermediate school students, with a surplus of 58 ~~69~~ intermediate school seats.

FUTURE WITHOUT THE PROPOSED PROJECT (2038 ANALYSIS YEAR)

ENROLLMENT PROJECTIONS

Under *CEQR Technical Manual* guidelines, the assessment of No-Action conditions uses SCA enrollment projections as a basis for establishing the No-Action condition. SCA provides future enrollment projections by district for up to 10 years. The latest available enrollment projections to 2018 have been used in this analysis to project student enrollment to 2038.

These enrollment projections focus on the natural growth of the city’s student population (through births and grade retention) and do not account for new residential developments planned for the sub-district study areas (No-Action projects). Therefore, the future utilization rate for school facilities is calculated by adding the estimated enrollment from proposed residential developments in the school study areas (as provided by SCA’s Capital Planning Division) to SCA’s projected enrollment, and then comparing that number with projected school capacity. As a conservative measure, the number of students that would be generated by the full build out of the Southtown development has also been added.

Table 4-3 outlines the estimated number of new public school students generated as a result of development in the future under the No-Action condition, which is based on student generation rates listed in Table 6-1a of the *CEQR Technical Manual* (0.12 elementary students and 0.04 intermediate school students per residential unit in Manhattan).

**Table 4-3
Estimated Number of Students Introduced by Development
in the 2038 No-Action Condition**

Study Area	Students	
	Elementary	Intermediate
Sub-district 5 of CSD 2	168 ¹	58 ²
Notes:		
¹ SCA projects 103 elementary students would be added by No-Action development; 65 students have been added to account for future Southtown development.		
² SCA projects 36 intermediate students would be added by No-Action development; 22 students have been added to account for future Southtown development.		
Sources: SCA Capital Planning Division; RIOC; <i>CEQR Technical Manual</i> (June 2012).		

PROJECTED SCHOOL CAPACITY

According to the DOE’s *2010-2014 Five-Year Capital Plan—Proposed February 2013* 2012 Amendment and the Panel for Educational Policy, PS 51, which is currently temporarily housed at 323 East 91st Street, will relocate outside of there is one school capacity project under construction within Sub-District 5 of CSD 2 by September 2013. Concurrently, a new elementary school will be established at that same location, which is expected to have a capacity of at least 390 seats by 2018. The net effect of these changes will be to increase elementary school capacity in Sub-District 5 of CSD by approximately 165 seats. The capacity of PS 59 Beekman Hill International School will increase by 31 seats, to 374 seats. Any additional schools projects in the study area to be built after 2014 are not yet identified and therefore are not included in this analysis.

ANALYSIS

Elementary Schools

As shown in **Table 4-4**, elementary schools in the sub-district are forecast to be over capacity in the 2038 No-Action condition. Sub-district 5 of CSD 2 will operate at 128.447-percent utilization, with a deficit of 1,455 2,099-seats.

Table 4-4
Estimated Public Elementary and Intermediate School Enrollment, Capacity, and Utilization:
2038 No-Action Condition

Study Area	Projected Enrollment in 2038	Students Introduced by Residential Development in No-Action	Total No-Action Enrollment	Capacity	Available Seats	Utilization
Elementary Schools						
Sub-district 5 of CSD 2	6,401	168	6,569	5,114 4,470	-1,455 2,099	128.447%
Intermediate Schools						
Sub-district 5 of CSD 2	2,072	58	2,130	2,237 2,304	107.474	95.93%
Notes:						
¹ Elementary and intermediate school enrollment in each sub-district study area in 2038 was calculated per the June 2012 <i>CEQR Technical Manual</i> methodology.						
Sources: DOE <i>Enrollment Projections 2009-2018 by the Grier Partnership</i> ; DOE, <i>Utilization Profiles: Enrollment/Capacity/Utilization, 2010-2011-2012</i> ; DOE 2010-2014 <i>Five-Year Capital Plan, Proposed Amendment</i> , February 2013 ²⁰¹² ; School Construction Authority.						

Intermediate Schools

As shown in **Table 4-4**, intermediate schools in the sub-district are forecast to operate with a surplus of seats. Sub-district 5 of CSD 2 will operate at 95.93-percent utilization, with a surplus of 107.474-seats.

PROBABLE IMPACTS OF THE PROPOSED PROJECT (2038—FULL BUILD)⁴

The proposed project would result in the introduction of 49 elementary school students and 16 intermediate school students in the study area by 2038 (see **Table 4-5**).

Table 4-5
Estimated Number of Students Introduced in the Study Area:
2038 With Action Condition

Study Area	Elementary Students	Intermediate Students
Sub-district 5 of CSD 2	49	16
Source: Cornell University		

ELEMENTARY SCHOOLS

The total elementary school enrollment of Sub-district 5 of CSD 2 would increase by 49 students to 6,618 (129.448-percent utilization), and the deficit of seats would increase to 1,504 2,148-seats (see **Table 4-6**).

⁴ As noted above under “Preliminary Screening,” the number of students introduced by the proposed project by 2018 would not exceed the CEQR Technical Manual’s relevant student thresholds, and therefore, detailed analyses are not warranted for the 2018 analysis year.

Table 4-6

**Estimated Public Elementary and Intermediate School Enrollment, Capacity, and Utilization:
2038 With Action Condition**

Study Area	Future No-Action Enrollment	Students Introduced by Proposed Project	Total With Action Enrollment	Capacity	Available Seats	Utilization	Increase in Utilization over No-Action
Elementary Schools							
Sub-district 5 of CSD 2	6,569	49	6,618	5,114	4,470	150	148%
Intermediate Schools							
Sub-district 5 of CSD 2	2,130	16	2,146	2,237	2,304	91	155%
Sources: DOE <i>Enrollment Projections 2009-2018 by the Grier Partnership</i> ; DOE, <i>Utilization Profiles: Enrollment/Capacity/Utilization, 2010-2011-2012</i> , DOE 2010-2014 <i>Five-Year Capital Plan, Proposed Amendment</i> , February 2013; School Construction Authority.							

As noted above, a significant adverse impact may occur if the proposed project would result in both of the following conditions: (1) a utilization rate of the elementary schools in the sub-district study area that is equal to or greater than 100 percent in the future No-Action condition; and (2) an increase of five percentage points or more in the collective utilization rate between the future No-Action and With Action conditions.

Although elementary schools within Sub-district 5 of CSD 2 would operate with a shortage of seats in 2038, the proposed project would introduce a small number of students relative to the overall enrollment of the study area. As a result, they would not substantially increase the elementary school utilization rate. The proposed project would increase the elementary school utilization rate by approximately 1 percent, which is below the *CEQR Technical Manual* threshold of 5 percent or more for a significant adverse impact. Because the proposed project would increase the elementary school utilization rate by less than five percentage points, the proposed project would not result in a significant adverse impact on elementary schools in Sub-district 5 of CSD 2. Therefore, the proposed project would not result in a significant adverse impact on elementary schools.

INTERMEDIATE SCHOOLS

The total intermediate school enrollment of Sub-district 5 of CSD 2 would increase by 16 to 2,146 (96.93-percent utilization), resulting in a surplus of 91.455-seats (see Table 4-6).

As noted above, a significant adverse impact may occur if the proposed project would result in both of the following conditions: (1) a utilization rate of the intermediate schools in the sub-district study area that is equal to or greater than 100 percent in the future No-Action condition; and (2) an increase of five percentage points or more in the collective utilization rate between the future No-Action and With Action conditions.

Intermediate schools within Sub-district 5 of CSD 2 are forecast to operate with a surplus of seats in 2038, and the proposed project would introduce a small number of students relative to the overall enrollment of the study area. The sub-district would operate with a surplus of 91.455 seats, and the proposed project would increase the intermediate school utilization rate by approximately 1 percent. Because intermediate schools in the study area would not operate at 100 percent utilization or greater, and the proposed project would increase the intermediate school utilization rate by less than five percentage points, the proposed project would not result in a significant adverse impact on intermediate schools in Sub-district 5 of CSD 2. Therefore, the proposed project would not result in a significant adverse impact on intermediate schools.

ALTERNATIVE SCHOOLS ANALYSIS

As discussed above under “Methodology,” the preceding schools analysis has been conducted using Cornell University’s estimates of the number of children that would be generated by the proposed project. A more conservative alternative approach to the analysis would be to estimate the number of students generated by the proposed project by applying the student generation rates found in Table 6-1a of the *CEQR Technical Manual* to the number of residential units that would be provided for faculty, Cornell leadership~~staff~~, visitors/adjuncts, postdoctoral fellows, and Ph.D. candidates. Of the 1,094 residential units that would be built by 2038, 621 would be provided for these populations.

Using this alternative methodology, the full build out of the proposed project would generate 75 elementary school students, 25 intermediate school students, and 37 high school students, based on the introduction of 621 housing units for populations that would be expected to include children, by 2038. This number of students is higher than Cornell University’s estimate. Although Cornell does not anticipate that this many children would be introduced by the proposed project, this alternative schools analysis has been prepared using these higher numbers of children in order to conservatively account for the possibility that a greater number of students could be generated than is expected.

As summarized in **Table 4-7**, with these additional 75 elementary school students, elementary school utilization would increase to 129.49~~149~~-percent Sub-district 5 of CSD 2; with the additional 25 intermediate school students, intermediate school utilization would increase to 96.94~~94~~-percent in Sub-district 5 of CSD 2. The increase in utilization for elementary schools in the sub-district would be one two~~two~~-percent, which is below the five percent threshold for a significant adverse impact. The increase in utilization for intermediate schools in the sub-district would be one percent, and intermediate schools would operate with surplus capacity. Therefore, although the alternative methodology would introduce a greater number of students to the study area, the proposed project would not result in any significant adverse schools impacts under the alternative schools analysis.

Table 4-7
Estimated Public Elementary and Intermediate School Enrollment, Capacity, and Utilization: 2038 With Action Condition, using the Alternative Methodology

Study Area	Future No-Action Enrollment	Students Introduced by Proposed Project	Total With Action Enrollment	Capacity	Available Seats	Utilization	Increase in Utilization over No-Action
Elementary Schools							
Sub-district 5 of CSD 2	6,569	75	6,644	<u>5,114</u> 4,470	<u>-1,530</u> 2,174	<u>129.49</u> 149 %	<u>12</u> 2 %
Intermediate Schools							
Sub-district 5 of CSD 2	2,130	25	2,155	<u>2,237</u> 2,304	<u>82.446</u> 82.446	<u>96.94</u> 94 %	<u>1</u> 1 %
Sources: DOE <i>Enrollment Projections 2009-2018 by the Grier Partnership</i> ; DOE, <i>Utilization Profiles: Enrollment/Capacity/Utilization, 2010-2011-2012</i> , DOE 2010-2014 <i>Five-Year Capital Plan, Proposed Amendment</i> , February 2012; School Construction Authority.							

D. INDIRECT EFFECTS ON PUBLIC LIBRARIES

METHODOLOGY

According to the *CEQR Technical Manual*, the focus of a libraries analysis is on neighborhood branch libraries and not on the major research libraries that may fall within a study area. Service areas for neighborhood branch libraries are based on the distance that residents would travel to use library services, typically not more than ¾ mile (this is referred to as the library’s

“catchment area”). This libraries analysis compares the population generated by the proposed project with the catchment area population of libraries available within an approximately ¾ mile area around the project site. The closest library to the project site is the Roosevelt Island branch. The catchment area for the library is limited to Roosevelt Island itself for the purposes of this analysis, as the East River acts as a physical barrier that would discourage residents from accessing library resources in Manhattan or Queens.

To determine the existing population of each library’s catchment area, 2010 U.S. Census data were assembled for the two census tracts that fall primarily within ¾ mile of the Roosevelt Island branch. The study area is therefore comprised of the two census tracts on Roosevelt Island (New York County Census Tracts 238.01 and 238.02). The catchment area population in the No-Action condition was estimated by multiplying the number of new residential units in No-Action projects located within the ¾-mile catchment area by an average household size of 2.19 persons.⁵ The catchment area population in the With Action condition was estimated by adding the anticipated population that would result from the full build out of the Cornell NYC Tech campus.

New population in the No-Action and With Action conditions was added to the existing catchment area population. According to the *CEQR Technical Manual*, if a proposed action would increase a library’s catchment area population by 5 percent or more, and this increase would impair the delivery of library services in the study area, a significant impact could occur.

For the existing, No-Action, and With Action conditions, the ratio of library holdings per resident is estimated, to provide a quantitative gauge of available resources in the applicable branch libraries. The holdings per resident ratio is calculated to help determine impact significance, but changes in this ratio do not constitute an impact threshold.

EXISTING CONDITIONS

The project site is served by the New York Public Library (NYPL) system, which includes 85 neighborhood branches and four research libraries located in Manhattan, the Bronx, and Staten Island, and houses approximately 53 million volumes (Queens and Brooklyn have separate library systems).

In Manhattan, NYPL branch libraries contain approximately 1.9 million holdings. As the population of Manhattan is approximately 1,585,873, the overall ratio of holdings-to-resident in the borough is 1.20.⁶

The closest NYPL neighborhood library to the project site is the Roosevelt Island branch, located at 524 Main Street (see **Figure 4-2**). **Table 4-8** provides the catchment area population for the library. The Roosevelt Island branch has approximately 24,418 holdings. With a catchment area population of 11,661, the combined catchment area has a holdings-to-resident ratio of 2.09.

⁵ Average household size for New York County Census Tract 238/Block Group 1 (US Census, 2010)

⁶ Total population of New York County (US Census, 2010).

Table 4-8
Public Library Serving the Project Site

Map No.*	Library Name	Address	Holdings	Catchment Area Population	Holdings per Resident
1	Roosevelt Island	524 Main Street	24,418	11,661	2.09
Notes: * See Figure 4-2.					
Sources: NYPL; U.S. Census Bureau, 2010 Census, NYC Department of City Planning Selected Facilities and Program Sites					

The Roosevelt Island branch originated in 1976 as a one-room community library that was run solely by volunteers. In 1997, the Roosevelt Island branch became the 85th branch of the NYPL system. The library offers a wide selection of reading materials for people of all ages as well as computers with free internet access. They also offer special programs, such as reading hours, book groups, a knitting and crochet group, films, and lectures. In addition, it should be noted that residents can go to any NYPL branch and order books from any of the other library branches.

FUTURE WITHOUT THE PROPOSED PROJECT (2038 ANALYSIS YEAR)

In the future No-Action condition, the existing Roosevelt Island branch is expected to move to a new space near the existing library, at 504 Main Street. Although the new Roosevelt Island library will have twice as much space as the existing branch, it is conservatively assumed for the purpose of this analysis that it will have 50 percent more holdings. The catchment area population of the library will increase as a result of development projects completed in the No-Action condition.

In the No-Action condition, the Roosevelt Island Operating Corporation (RIOC) will oversee the development of three additional residential towers on the Island, which will add 540 new residential units by 2038. Assuming an average household size of 2.19, these new units are expected to introduce 1,183 new residents to the catchment area.⁷ As shown in **Table 4-9**, these new residents will increase the population of the catchment area to 12,844. Due to the expansion of the Roosevelt Island branch, the holdings-per-resident ratio will increase from 2.09 to 2.85. The holdings-to-resident ratio for the Roosevelt Island branch is expected to be substantially higher than the overall ratio for Manhattan (1.20).

Table 4-9
Catchment Area Population in the 2038 No-Action Condition

Library Name	Existing Catchment Area Population	New Residents in the No-Action Condition	New Catchment Area Population	New Holdings	New Holdings per Resident in the No-Action Condition
Roosevelt Island	11,661	1,183	12,844	36,627	2.85
Sources: NYPL; U.S. Census Bureau, 2010 Census, AKRF, Inc.					

PROBABLE IMPACTS OF THE PROPOSED PROJECT (2038 FULL BUILD)

According to the *CEQR Technical Manual*, if a proposed project increases the study area population by 5 percent or more as compared with the No-Action condition, this increase may impair the delivery of library services in the study area, and a significant adverse impact could occur.

⁷ Average household size in New York County Census Tract 238/Block Group 1 (US Census, 2010).

The proposed project would result in the full build out of the Cornell NYC Tech campus by 2038, which would include approximately 1,094 residential units for graduate students, faculty, and staff. Cornell University estimates that these units would accommodate approximately 2,326 new residents on the project site. **Table 4-10** provides the population increase and the change in the holding-per-resident ratio for Roosevelt Island library’s catchment area.

Table 4-10
Catchment Area Population in the 2038 With Action Condition

Library Name	Catchment Area Population – No-Action Condition	Population Increase due to the Proposed Action*	Catchment Area Population – With Action Condition	Percentage Population Increase	Holdings per Resident – With Action Condition
Roosevelt Island	12,844	2,326	15,170	18.1%	2.41

Sources: NYPL; Cornell University, AKRF, Inc.

With this additional population, the Roosevelt Island branch would serve 15,170 residents, and the holdings per resident ratio would decrease from 2.85 in the No-Action condition to 2.41 in the With Action condition.

With the proposed project, the Roosevelt Island branch catchment area population would increase approximately 18.1 percent. However, the holdings per resident ratio of the study area in the With Action condition (2.41) would continue to be higher than the overall ratio in Manhattan (1.20), indicating that the study area would continue to be well-served by the Roosevelt Island branch. ~~In addition, many of the residents in the catchment area for Roosevelt Island branch also reside within ¾ miles of other nearby libraries, such as the 67th Street branch on the Upper East Side of Manhattan, and the Long Island City branch, located at 37-44 21 Street in Queens.⁸~~ Residents of the study area would have access to the entire NYPL system through the inter-library loan system and could have volumes delivered directly to the Roosevelt Island branch. Residents who work off-Island (such as the partners of Cornell NYC Tech faculty, staff, and students) would also have access to libraries near their places of work.

Moreover, the Cornell NYC Tech community would have access to the resources of the Cornell University Libraries (CUL) system, one of the world’s largest research libraries, with approximately 7.8 million print volumes and over 80,000 electronic serial titles. CUL users may request copies of books, journal articles, and other materials located in the print collection of the Ithaca/Geneva Cornell Libraries, and requested documents would be made available electronically. While not the principal part of the collection, CUL libraries (including the proposed library services at Cornell NYC Tech) include collections of literature, children’s books, youth books, and other non-academic materials. Access to the CUL system would be expected to reduce the proposed project’s incremental demand on the NYPL system to some extent.

Due to these factors, while the percentage increase in catchment area population exceeds the *CEQR Technical Manual* guideline of five percent, the population introduced by the proposed project would not impair the delivery of library services in the study area, and the proposed project would not result in any significant adverse impacts on public libraries.

⁸ ~~The Queens Library system is separate from NYPL. However, there is no residency requirement for use of the Queens Library system, which could be utilized by residents of the study area.~~

E. CONCLUSIONS

Based on a preliminary screening, detailed analyses are warranted of the proposed project potential impacts on: public elementary and intermediate schools for the 2038 analysis year; and public libraries for the 2038 analysis year. The detailed analyses find that the proposed project would not result in any significant adverse impacts on community facilities.

INDIRECT EFFECTS ON PUBLIC SCHOOLS

The analysis of indirect effects on public schools concludes that the proposed project would not result in any significant adverse impacts on public elementary or intermediate schools.

The project site is located within Sub-district 5 of CSD 2. Based on information provided by Cornell University, the proposed project would generate approximately 49 elementary school students and 16 intermediate school students, by 2038.

ELEMENTARY SCHOOLS

Although elementary schools within Sub-district 5 of CSD 2 would operate with a shortage of seats in 2038, the proposed project would introduce a small number of students relative to the overall enrollment of the study area. As a result, they would not substantially increase the elementary school utilization rate. The proposed project would increase the elementary school utilization rate by approximately 1 percent, which is below the *CEQR Technical Manual* threshold of 5 percent or more for a significant adverse impact. Because the proposed project would increase the elementary school utilization rate by less than five percentage points, the proposed project would not result in a significant adverse impact on elementary schools in Sub-district 5 of CSD 2. Therefore, the proposed project would not result in a significant adverse impact on elementary schools.

INTERMEDIATE SCHOOLS

Intermediate schools within Sub-district 5 of CSD 2 would operate with a surplus of seats in 2038, and the proposed project would introduce a small number of students relative to the overall enrollment of the study area. The sub-district would operate with a surplus of 91 ~~172~~ seats, and the proposed project would increase the intermediate school utilization rate by approximately 1 percent. Because intermediate schools in the study area would not operate at 100 percent utilization or greater, and the proposed project would increase the intermediate school utilization rate by less than five percentage points, the proposed project would not result in a significant adverse impact on intermediate schools in Sub-district 5 of CSD 2. Therefore, the proposed project would not result in a significant adverse impact on intermediate schools.

ALTERNATIVE SCHOOLS ANALYSIS

Using a more conservative alternative methodology, the full build out of the proposed project would generate 75 elementary school students, 25 intermediate school students, and 36 high school students (although Cornell University does not anticipate that this many children would be introduced by the proposed project).

With these additional 75 elementary school students, elementary school utilization would increase to 129 ~~149~~ percent Sub-district 5 of CSD 2; with the additional 25 intermediate school students, intermediate school utilization would increase to 96 ~~94~~ percent in Sub-district 5 of CSD 2. The increase in utilization for elementary schools in the sub-district would be one ~~two~~ percent, which is below the five percent threshold for a significant adverse impact. The increase in utilization for intermediate schools in the sub-district would be one percent, and intermediate

schools would operate with surplus capacity. Therefore, although the alternative methodology would introduce a greater number of students to the study area, the proposed project would not result in any significant adverse schools impacts under the alternative schools analysis.

INDIRECT EFFECTS ON LIBRARIES

The proposed project would introduce approximately 2,326 residents to the project site by 2038. With this additional population, the Roosevelt Island branch would serve 15,170 residents, an increase of approximately 18.1 percent. Independent of the proposed project, the Roosevelt Island branch will relocate to 504 Main Street before the analysis year, doubling its space. The holdings per resident ratio is anticipated to be 2.41.

With the proposed project, the Roosevelt Island branch catchment area population would increase approximately 18.1 percent. However, the holdings per resident ratio of the study area in the With Action condition (2.41) would continue to be higher than the overall ratio in Manhattan (1.20), indicating that the study area would continue to be well-served by the Roosevelt Island branch. ~~In addition, many of the residents in the catchment area for Roosevelt Island branch also reside within $\frac{3}{4}$ miles of other nearby libraries.~~ Residents of the study area would have access to the entire NYPL system through the inter-library loan system and could have volumes delivered directly to the Roosevelt Island branch. Residents who work off-Island (such as the partners of Cornell NYC Tech faculty, staff, and students) would also have access to libraries near their places of work. Moreover, the Cornell NYC Tech community would have access to the resources of the Cornell University Libraries (CUL) system, one of the world's largest research libraries, with approximately 7.8 million print volumes and over 80,000 electronic serial titles, which would be expected to reduce the incremental demand on the NYPL system to some extent. Therefore, while the percentage increase in catchment area population exceeds the *CEQR Technical Manual* guideline of five percent, the population introduced by the proposed project would not impair the delivery of library services in the study area, and the proposed project would not result in any significant adverse impacts on public libraries. *